INDUSTRIAL HARDWARE SUPPLY SDN BHD v. SINOWAJA (MALAYSIA) SDN BHD

HIGH COURT MALAYA, KUALA LUMPUR
AZLAN SULAIMAN JC
[CIVIL SUIT NO: WA-22IP-58-09-2019]
12 OCTOBER 2022

Abstract – *Simply because a product requires additional integers does not mean that it does not infringe a utility innovation. That the product contains all five essential integers of a utility innovation is what matters. The alleged difference in the usage of the utility innovation and the infringing product is irrelevant for determining infringement.*

CIVIL PROCEDURE: *Injunction – Application for – Allegation that anti-theft nut distributed and supplied by defendant infringed plaintiff's nut – Application to restrain defendant from infringing, manufacturing, importing, supplying, distributing, offering to sell, selling, using or stocking item similar to plaintiff's utility innovation*

INTELLECTUAL PROPERTY: *Infringement – Invalidation of patent – Allegation that anti-theft nut distributed and supplied by defendant infringed plaintiff's nut – Whether utility innovation lacked novelty – Whether industrially applicable – Whether lacked sufficient disclosure*

The plaintiff was the registered owner of Utility Innovation No. MY 165197-A for a 'Torque Shear Tamper Resistant Nut' ('plaintiff's UI'). The plaintiff claimed that an anti-theft nut ('ATN') manufactured by a company in China named Hebei Xinde Power Fittings Co. Ltd, distributed in Malaysia by the defendant as the sole distributor and supplied by the defendant to Sarawak Energy Berhad for their use in transmission line projects, infringed the plaintiff's nut. The plaintiff therefore sought the following reliefs against the defendant for, *inter alia,* an injunction to restrain the defendant from: (i) infringing or causing, enabling or assisting others to infringe the plaintiff's UI in Malaysia; (ii) manufacturing, causing others to manufacture, importing, supplying, distributing, offering to sell, selling, using or stocking any torque shear tamper-resistant nut and any shear-off type and anti-theft locknut that are functionally identical or similar to the plaintiff's UI or that have the same function or solves the same theft or vandalism problems as the plaintiff's UI without the license, consent or permission from the plaintiff. In response, apart from denying that the ATN infringed the plaintiff's UI, the defendant further counterclaimed to invalidate the plaintiff's UI as a utility innovation because it lacked novelty, was not industrially applicable and lacked sufficient disclosure. The parties each called upon their experts. PW1 testified for the plaintiff ('PE') while DW1 testified for the defendant ('DE').

PE was of the opinion that the plaintiff's UI was novel because Integers III (Protusion), IV (Hollow End), V (Sleeve) of the plaintiff's UI were not anticipated by/present in the Kesselman Patents. DE, on the other hand, was of the view that all five essential Integers were anticipated by/present. As PE and DE were on consensus that Integers I and II were anticipated by/present in the Kesselman Patents, it remained for this court to ascertain just the remaining Integers III, IV and V.

Held (allowing plaintiff's claim and dismissing defendant's counterclaim):

(1) The court accepted PE's evidence and made a finding of fact that the plaintiff's UI was novel on all three Integers III, IV and V and was not anticipated by the Kesselman Patents. Any of them would do and if the court was wrong, on any one or two of them. Consequently, the ground of invalidation failed. The court further made a finding of fact that the plaintiff's UI was industrially applicable and rejected the defendant's objection and ground on invalidation. (paras 49 & 57)

(2) The test for sufficiency of disclosure was whether the plaintiff's UI specification as a whole, disclosed the plaintiff's innovation in a manner that was sufficiently clear and complete for person ordinarily skilled in the art ('POSITA') to make the product. The defendant's contention that the plaintiff's UI was insufficiently disclosed was rejected. The allegation that the plaintiff's UI 'does not specify that it functions both as a structural nut as well as an 'add-on-nut' related to the function of the plaintiff's UI, which was irrelevant to the issue of whether, from the specification, a POSITA was able to make the product. Therefore, the plaintiff's UI was sufficiently disclosed in the specification. (paras 64, 66 & 68)

(3) Simply because the defendant's ATN required additional integers did not mean that it did not infringe the plaintiff's UI. That the defendant's ATN contained all the five essential integers of the plaintiff's UI was what mattered. The alleged difference in the usage of the plaintiff's UI and the defendant's ATN was irrelevant for determining infringement. As the DE admitted in cross-examination, the usage of a nut for a particular project was decided by the project engineer. If the project engineer decided to use the defendant's ATN as a 'structural nut' or an add-on-nut, that would be up to him. Therefore, the defendant's ATN infringed the plaintiff's UI. (paras 79, 81, 82 & 84)

Case(s) referred to:

Catnic Components & Anor v. Hill & Smith Ltd [1982] RPC 183 ***(refd)***

Fukuyama Automation Sdn Bhd v. Xin Xin Engineering Sdn Bhd & Anor [2014] 1 LNS 1210 HC ***(refd)***

Idenix Pharmaceuticals, Inc. v. Gilead Sciences Inc & Ors [2016] EWCA Civ 1089 ***(refd)***

Kendek Industry Sdn Bhd v. Ecotherm (TFT) Sdn Bhd [2010] 10 CLJ 219 HC ***(refd)***

Kingtime International Ltd & Anor v. Petrofac E&C Sdn Bhd [2018] 1 LNS 1658 ***(refd)***

Merck Sharp & Dohme Corp & Anor v. Hovid Bhd [2017] MLJU 77 ***(refd)***
Merck Sharpe & Dohme Corporation & Anor v. Hovid [2022] MLJU 16 ***(refd)***
Ranbaxy (Malaysia) Sdn Bhd v. EI Du Pont De Nemours & Co [2011] 1 LNS 16 HC ***(refd)***
SKB Shutters Manufacturing Sdn Bhd v. Seng Kong Shutter Industries Sdn Bhd & Anor [2015] 9 CLJ 405 FC ***(refd)***
Spind Malaysia Sdn Bhd v. Justrade Marketing Sdn Bhd & Anor [2018] 4 CLJ 705 FC ***(foll)***
Tan Yock Kuan & Anor v. Cew Sin Plastics Pipe Sdn Bhd [2019] 1 LNS 681 HC ***(refd)***

Legislation referred to:
Evidence Act 1950, ss. 45(1), (2), 114(g)
Patents Act 1983, ss. 14, 16, 17, 17A, 23, 27A, 36(3)(b), 58, Second Schedule
Patents Regulations 1986, regs. 5, 12(1)(c), 13(1)
Rules of Court 2012, O. 40A r. 5

For the plaintiff - Jonathan Gerard & Chua Yee Song; M/s Ken St James
For the defendant - Indran Shanmuganathan, Michell Loi & Yap Khai Jean; M/s Shearn Delamore & Co

Reported by Lina E

JUDGMENT
(After Trial)

Azlan Sulaiman JC:

Introduction

[1] After a full trial of the action, I allowed the plaintiff's claim and dismissed the defendant's counterclaim. This is my judgment for doing so.

The Claim, The Counterclaim, And The Order For Deciding Them

[2] The plaintiff is the registered owner of Utility Innovation No. MY-165197-A for a "Torque Shear Tamper Resistant Nut" ("the plaintiff's UI"). The certificate for utility innovation issued for the plaintiff's UI is dated 28 February 2018.

[3] The plaintiff claims that an anti-theft nut manufactured by a company in China named Hebei Xinde Power Fittings Co Ltd ("Hebei"), distributed in Malaysia by the defendant as Hebei's sole distributor, and supplied by the defendant to Sarawak Energy Berhad ("SEB") for use in SEB's transmission line projects, infringed the plaintiff's nut. For convenience, I will refer to that anti-theft nut as "the ATN".

[4] The plaintiff therefore seeks the following relief against the defendant:

(1) an injunction be granted to restrain the Defendant, whether acting by itself, its officers, servants or agents or any of them or otherwise howsoever from doing the following acts or any of them, that is to say:

A (a) infringing, or causing, enabling or assisting others to infringe Utility Innovation No. MY-165197-A ("Plaintiff's UI") in Malaysia;

(b) manufacturing, causing others to manufacture, importing, supplying, distributing, offering to sell, selling, using or stocking any torque shear tamper-resistant nut and any shear-off type anti-theft locknut that are functionally identical, or similar to the Plaintiff's Ul or that have the same function or solves the same theft or vandalism problems as the Plaintiff's Ul ("Infringing Products") without the license, consent or permission from the plaintiff;

C (2) the Defendant is to deliver up for destruction on oath, all Infringing Products within 14 days from the date of this Judgment, irrespective of the formal service of the sealed Judgment on the Defendant;

(3) an order for the assessment of damages;

D (4) at the option of the Plaintiff, an order for an account of the profits made by the Defendants from the importation, supply, distribution, offer to sell, sale, use or stock of any Infringing Products;

(5) interest at the rate of 5% per annum be chargeable on the amount of damages assessed or profits accounted for that is payable by the Defendant from the date of this Judgment to the date of full and final payment;

E (6) costs on an indemnity or solicitor-client basis; and

(7) such further or other reliefs as this Honourable Court deems fit and just.

F **[5]** In response, apart from denying that the ATN infringes the plaintiff's UI, the defendant further counterclaims to invalidate the plaintiff's UI as a utility innovation. In brief, the defendant essentially contends that the registration of the plaintiff's UI as a utility invention should be invalidated because it lacks novelty, is not industrially applicable and lacks sufficient G disclosure.

[6] Consequently, the defendant therefore counterclaims for the following relief:

(i) a declaration that the plaintiff's UI is and always has been invalid and H unenforceable;

(ii) a declaration that the manufacture, import, offer for sale, sale, use and/or stocking of the ATN for the purpose of offering for sale, selling or using the ATN, do not constitute an infringement of the 197 UI;

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(iii) an order that the plaintiff's UI be revoked and invalidated and that upon the order (if granted) being served on the Registrar of Patents, the Registrar of Patents may take such action as may be necessary to revoke and remove from the Register of Patents under serial no.: MY-165197-A including the publication of such revocation in the relevant Government *Gazette*;

(iv) costs of this action; and

(v) such further and other orders or reliefs as this Honourable Court deems fit.

[7] If I allow the defendant's counterclaim, the plaintiff's UI would be invalidated as a utility innovation, and there would obviously be no issue of infringement by the ATN and thus no need to decide whether the ATN infringes the plaintiff's UI. In this light, I will therefore consider and decide the defendant's counterclaim for invalidation first before the plaintiff's claim for infringement. In doing so, I am merely following the approach of the Federal Court in *Spind Malaysia Sdn Bhd v. Justrade Marketing Sdn Bhd & Anor* [2018] 4 CLJ 705; [2018] 4 MLJ 34, and of the High Court in *Kingtime International Ltd & Anor v. Petrofac E&C Sdn Bhd* [2018] 1 LNS 1658 and *Merck Sharpe & Dohme Corporation & Anor v. Hovid Bhd* [2022] MLJU 16.

[8] But before doing that, it may be helpful to set out some initial principles for deciding the counterclaim and then, if need be, the claim.

Utility Innovation And The Patents Act, 1983 ("The Act")

[9] Section 17 of the Act states as follows:

> "For the purpose of this Part and any regulations made under this Act in relation to this Part, utility innovation" means any innovation which creates a new product or process, or any improvement of a known product or process, or any new improvement of a known product or process which is capable of industrial application ... .

[10] In *Kendek Industry Sdn Bhd v. Ecotherm (TFT) Sdn Bhd* [2010] 10 CLJ 219, Azahar Mohamed J (now CJ (Malaya)) said:

> A utility innovation is not a patent. A utility innovation is an exclusive right granted for a 'minor' invention that falls short of the inventive step and novelty bars required for patent protection. Is it at times described as utility models, petty patents or by some other name.

[11] By s. 17A of the Act, the Second Schedule of the Act applies to utility innovations.

Person Ordinarily Skilled In The Art (POSITA)

[12] In being able to determine whether a utility invention lacks novelty and/or is not industrially applicable and/or and lacks sufficient disclosure, and whether it has been infringed, it is commonplace for the parties to engage

experts to provide opinions on these matters. This invariably brings into play s. 45(1) and (2) of the Evidence Act 1950 entitled "Opinion of Experts" which provides:

> (1) When the court has to form an opinion upon a point of foreign law or of science or art, or as to identity or genuineness of handwriting or finger impressions, the opinions upon that point of persons specially skilled in that foreign law, science or art, or in questions as to identity or genuineness of handwriting or finger impressions, are relevant facts.
>
> (2) Such persons are called experts.

[13] In *SKB Shutters Manufacturing Sdn Bhd v. Seng Kong Shutter Industries Sdn Bhd & Anor* [2015] 9 CLJ 405; [2015] 6 MLJ 293, Zulkefli CJ said:

> [38] On the said questions (5) and (6) posed by the appellant we are of the view the general principles relating to the construction of patent claims and the role to be played by the 'experts' are well-established. The function of the expert is to educate the court in technology and that they come as teachers, as makers of the mantle for the court to don. For that purpose, it does not matter if they do not approximate a person skilled in the art (see the case of Technip France SA's Patent). As such, clearly the court can construe patent claims without the assistance of a person skilled in the art. Any assistance required is from an expert and he need not approximate a skilled person.

[14] The parties each called upon all experts, who each filed expert reports. Each expert also testified at the trial, as the respective party's first witness. PW1 was David Lewis Sharp ("PE"), and DW1 was Salimi bin Md Salleh ("DE"). Based on their respective extensive background and experience as set out in their respective *curriculum vitae* (which I will not bother to set out here), I accepted both as expert witnesses and as POSITA.

[15] However, given the strenuous objections the defendant raised to PE, I will deal with that first before proceeding to examine and decide the defendant's counterclaim to invalidate the plaintiff's UI as a utility innovation.

The Defendant's Objections To PE

[16] From the defendant's submissions, the defendant sharply criticised PE and essentially submitted that PE's opinion should be given little or no weight. The defendant's submission was based on the following contentions, summarised as follows:

(i) PE considered documents published after the priority date in formulating his opinion on the issues in this case;

(ii) he lacked experience in the application of fasteners in transmission line towers as well and was unfamiliar with the installation procedures of transmission line towers;

(iii) his evidence on industrial applicability of the plaintiff's UI was founded on the plaintiff's invoices and brochure without examining and verifying whether the products sold by the plaintiff were manufactured in accordance with the plaintiff's UI specification;

(iv) there were parts of his evidence which were not only incredible but also evasive in nature, and there were contradictory statements that he made during evidence-in-chief and later when he was his cross-examined;

(v) his evidence was catered only to support the plaintiff's case, was not an objective assessment, and fell far short of his role and responsibilities of a POSITA.

[17] Having read PE's amended expert report and gone through the notes of evidence thoroughly, based on the law, I would reject all of these defendant's objections to PE. Some of those reasons are below.

[18] Firstly, as learned counsel for the plaintiff rightly pointed out, the issues of invalidation and infringement are to be assessed by the court, through the eyes of the 'POSITA' (person ordinarily skilled in the art). The court is to 'don the mantle' of the POSITA. I find that PE's evidence was most helpful in that regard.

[19] Secondly, as I pointed out earlier, in *SKB Shutters Manufacturing, supra*, Zulkefli CJ said, *inter alia*, that "an expert ... need not approximate a skilled person." It was not necessary for PE to have had specific experience in the application of fasteners in transmission line towers or familiarity with the installation procedures of transmission line towers.

[20] I further find support for this in the judgment of Raus Sharif, CJ, in *Spind Malaysia Sdn Bhd v. Justrade Marketing Sdn Bhd & Anor* [2018] 4 CLJ 705; [2018] 4 MLJ 34, in which he said:

> Crucially, there is no requirement for an expert witness to approximate to the notional skilled person. It Is the reasons for the expert's opinion that matter, and such reasons do not depend on how closely the expert resembles the skilled man.
>
> The hypothetical skilled man, 'if real, would be very boring – a nerd' (*Technip France* at para [7]). Noting how the skilled man's characteristic of being uninventive is used to attack the evidence of an expert, along the general theme of 'my witness is more nerdlike than his', Jacob LJ stressed that the approach is unhelpful in *Technip France* at para. [12]:

> I must explain why I think the attempt to approximate real people to the notional man is not helpful. It is to do with the function of expert witnesses in patent actions. Their primary function is to educate the court in the technology – they come as teachers, as makers of the mantle for the court to don. For that purpose, it does not matter whether they do or do not approximate to the skilled man. What matters is how good they are at explaining things.

[21] More directly on point, *Tan Yock Kuan & Anor v. Cew Sin Plastics Pipe Sdn Bhd* [2019] 1 LNS 681; [2019] MLJU 1379 involved a utility innovation used to join permanently pipes in rainwater/drainage down-pipe systems and sanitary pipe-work systems. The defendant's expert questioned the plaintiff's expert's competence to testify as a POSITA, alleging that he had no prior experience in construing a UI or patent and had no work experience in the installation of pipes which used the UI in question. Wong Kien Kheong J said:

> I have no hesitation to overrule the 2 Objections because case law only requires a POSITA to have ordinary skill regarding a UI. If an expert has previous experience in the interpretation of a UI or patent or has previous work experience regarding the UI, such an experience clearly supports the finding that the expert is indeed a POSITA for the UI. However, the lack of such an experience does not *ipso facto* disqualify the expert from giving evidence as a POSITA for a UI so long as the expert has the necessary skill by way of study, training, work and/or personal experience regarding the UI. There is always a first time for an expert to be a POSITA for a UI even though he has no experience in construing a Ul or has no work experience regarding the UI.

[22] In addition, PE's background included extensive experience in the "manufacture of specialised fasteners used primarily in structural steel framing systems for buildings, bridges", and following the tragic events in New York commonly known as 9-11 "was selected as Team Leader for the Structural Engineers Association of New York (SEAoNY) volunteer engineers who were responsible for the collection of forensic evidence used for building performance evaluation of The World Trade Centre buildings" and received "a National Institute of Standards & Technology (NIST) Special Award for exemplary service in collection, preservation, and evaluation of mechanical fasteners and steel framing evidence". In my mind, all this qualifies and makes him an expert and a POSITA for this case.

[23] I also find that PE's evidence on the whole was credible and not incredible, he was not evasive, and any contradictory statements that he may have made were neither material nor sufficient to adversely affect his evidence in any way, more so when that was made under skilled cross-examination of senior counsel highly skilled in the art of cross-examination.

In particular, in my view, PE's evidence that there was no such thing as an add-on nut was unshaken and was only brought into being by persistent cross-examination trying to get him to admit to the contrary.

[24] In my view, the fact that PE stuck by his expert report and his views on the plaintiff's UI in no way meant that his evidence was catered only to support the plaintiff's case and was not an objective assessment. Experts are entitled to form a view, even a conclusive one in their minds, and just because they cannot be shaken on it does not make them unobjective or their testimony unhelpful or objectionable.

[25] I therefore dismiss the defendant's objections against PE and now move on to the defendant's counterclaim for invalidation of the plaintiff's UI.

Invalidation: Novelty

[26] Under s. 14 of the Act (as modified by the Second Schedule):

> (1) A utility innovation is new to Malaysia if it is **not** anticipated by prior art.
>
> (2) Prior art shall consist of:
>
> (a) everything disclosed to the public by written publication, by oral disclosure, by use or in any other way, prior to the priority date of the application for a certificate for a utility innovation claiming the utility innovation;
>
> (b) the contents of a domestic application for a certificate for a utility innovation having an earlier, priority date than the application referred to in paragraph (a) to the extent that such contents are included in the application for a certificate for a utility innovation published under section 33D on the basis of the said domestic application. (emphasis added)

[27] Under s. 27A of the Act, the priority date for the plaintiff's UI is the filing date of the application for it, *ie*, 13 August 2008.

[28] Under reg. 5 of the Patents Regulations 1986, the application for a utility innovation is made up of a request, a description, a claim, drawings and an abstract. It is the plaintiff's UI's claim that comes into focus when determining if it is novel or not.

[29] in *Spind Malaysia*, *supra*, Raus Sharif, CJ said:

> The purpose of the claims is to delimit the monopoly asserted by the inventor. In a celebrated passage in *Electric & Musical Industries Ltd & Boonton Research Corporation Limited v. Lissen Ltd* [1939] 56 RPC 23 at p. 39, Lord Russell explained:

> The function of the claims is to define clearly and with precision the monopoly claimed, so that others may know the exact boundaries of the area within which they will be trespassers. Their primary object is to limit, and not to extend, the monopoly. What is not claimed is disclaimed. The claims must undoubtedly be read as part of the entire document, and not as a separate document. Nevertheless, the forbidden field must be found in the language of the claims, and not elsewhere. It is not permissible, in my opinion, by reference to some language used in the earlier part of the specification to change a claim which by its own language is a claim for one subject-matter into a claim for another and a different subject-matter, which is what you do when you alter the boundaries of the forbidden territory. A patentee who describes an invention in the body of a specification obtains no monopoly unless it is claimed in the claims.

The starting point in patent litigation, whether to determine novelty, obviousness, or infringement, is thus to ascertain the scope of the claims in a patent. The point was well put by VK Rajah JA in *First Currency Choice* at para. [22]:

> … one of the most significant issues in patent litigation is the determination of the true construction of a patent specification, and, in particular, its claims. This is because the monopoly and scope of protection granted by a patent is defined by its claims (see *Electric & Musical Industries Ld v. Lissen Ld* (1938) 56 RPC 23 ('*Lissen*') at p. 39, which was followed in *Bean Innovations Pte Ltd v. Flexon (Pte) Ltd* [2001] 3 SLR 121 ('*Bean Innovations*')). Once the scope of the claims has been ascertained, the questions of whether the claims are obvious, whether a piece of prior art anticipated the claims and whether there has been an infringement of the patent can then be answered in concrete terms.

[30] In in *SKB Shutters Manufacturing*, *supra*, Zulkefli CJ said:

> We are of the view the law is clear that when it has to determine if an invention which is the subject of a patent claim lacks novelty or inventive step, one looks at the language of the claims which define the scope and monopoly claimed (see the case of *Electric and Musical Industries Ltd & Ors v. Lissen Ltd & Anor* (1939) 56 RPC 23). The reference in *The General Tire & Rubber Co v. The Firestone Tyre & Rubber Co Ltd & Ors* to a device is still in the context of a device as disclosed by the claims. It is ultimately the claims which must be looked at and considered.

[31] In *Fukuyama Automation Sdn Bhd v. Xin Xin Engineering Sdn Bhd & Anor* [2014] 1 LNS 1210; [2015] 9 MLJ 823, Yaacob Md Sam J (now JCA) said:

> In the case of *Seng Kong Shutter Industries Sdn Bhd & Anor v. SKB Shutters Manufacturing Sdn Bhd* [2014] 5 MLJ 98; [2014] 4 CLJ 1037, the Court of Appeal had held that in considering the issue whether the plaintiff's

patent has been anticipated by prior art, the correct approach to be adopted is to compare the claims of the plaintiffs patent that defines the invention against the prior art, in the present case, the Japanese patent.

For alleged prior art document to defeat the novelty if a patent claim, all of the integers in the said patent claim must be directly and clearly disclosed by the said document. It is trite that for a patent claim to be invalidated for lack of novelty, there cannot be a disclosure of some of the integers of the patent claim in one cited document and disclosure of the remaining integers in one or more other document.

[32] The claim in the plaintiff's application for the plaintiff's UI states as follows:

A torque shear tampering nut comprising:

a tail end (I) having an outer profile for engagement with standard tooling;

a hollow end (IV) having an internally threaded bore;

a protrusion (III) extending outwardly from the hollow end (IV);

a shear-off groove (II) connecting the tail end (I) to the hollow end (IV); and

a sleeve (V) for surrounding the hollow end (IV), is rotatably coupled with the hollow end (IV);

wherein the tail end (I) shears off and separates from the hollow end (IV) along the shear-off groove (II) after a prescribed fastening torque is attained; and

wherein the sleeve is retained in position on the hollow end (IV) during use by the protrusion (III) preventing the sleeve from detaching from the hollow end (IV).

[33] In Item 1 of PE's and DE's experts' points of convergence and divergence pursuant to O. 40A r. 5 of the Rules of Court 2012, PE and DE agreed that the plaintiff's UI has five essential integers, namely:

(i) Integer I: A tail end having an outer profile for engagement with standard tooling during the fastening process

(ii) Integer II: A shear-off groove connecting the tail end to the hollow end

(iii) Integer III: A protrusion extending outwardly from the hollow end

(iv) Integer IV: A hollow end having an internally threaded bore

(v) Integer V: A sleeve for surrounding the hollow end, which is rotatably coupled with the hollow end

(collectively, "the essential integers").

[34] As for prior art, both PE and DE agreed that the relevant prior art here were two patented inventions by one David A. Kesselman of California, USA, (collectively, "the Kesselman inventions"). PE and DE were of the consensus that the Kesselman inventions were similar and could therefore be considered together as the prior art. The two inventions were:

(i) U.S. Patent No. 4,037,515 dated 26 July 1977 for a tamper-resistant fastener ("Kesselman 1977"); and

(ii) International Patent No: WO 93/06375 dated 1 April 1993 for a tamper proof anchor bolt assembly ("Kesselman 1993").

[35] Thus, the plaintiff had to show that the plaintiff's UI was novel when compared to the Kesselman inventions.

[36] This court's task in respect of this issue of novelty was therefore to ascertain and decide whether the essential integers were anticipated by the Kesselman inventions. If they were, then the plaintiff's UI would fail on the test of novelty.

[37] Conversely, if any one of the essential integers was not anticipated by the Kesselman inventions, then the plaintiff's UI was novel.

[38] PE was of the opinion that the plaintiff's UI was novel because Integers III (Protusion), IV (Hollow End) and V (Sleeve) of the plaintiff's UI were not anticipated by/present in the Kesselman patents. DE, on the other hand, was of the view that all five essential integers were anticipated by/present. As they were on consensus that Integers I and II were anticipated by/present in the Kesselman patents, it remained for this court to ascertain just the remaining Integers III, IV and V.

Integer III Of The Plaintiff's UI (Protrusion)

[39] I have reproduced below from PE's expert report figures 3, 4 and 14 that he used to highlight the novelty of Integer III in the plaintiff's UI when compared to Kesselman 1977 and Kesselman 1993.

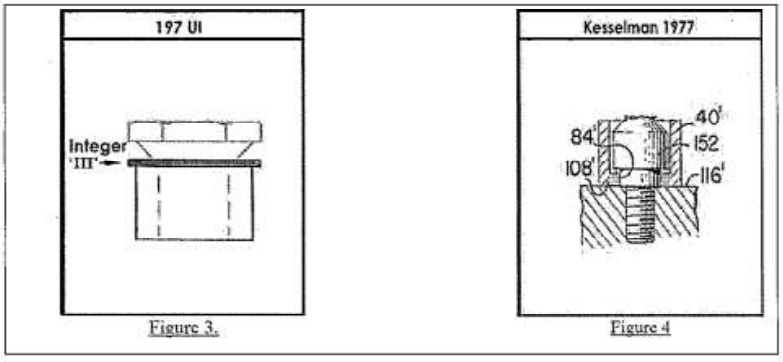

Figure 3. Figure 4

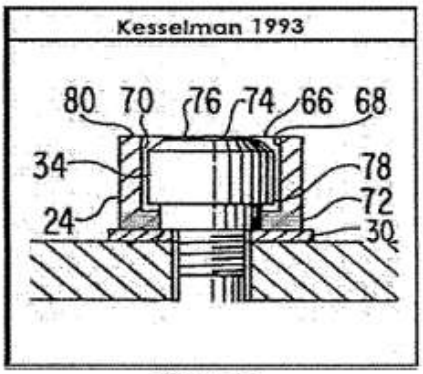

Figure 14.

[40] In paras. 165 to 173 and 198 to 205 of his expert report, PE explained at length the novelty of Integer III of the plaintiff's UI and also responded to DE's opinion that the plaintiff's UI is not novel. Amongst others, he said:

(i) Figures 3, 4 and 14 depict how the plaintiff's UI, Kesselman 1977 and Kesselman 1993 each secure the tamper-resistant 'slip ring' or 'sleeve'.

(ii) The red highlighting on figure 3 (shaded) depicts the unique circumferential 'protrusion' which projects outwardly from, and is integral to, the 'nut', the main structural body of the device.

(iii) Conversely, Kesselman 1977 utilises a flange (108), which is an integral part of the slip ring (40), which is not part of the main structural body of the device. Kesselman 1977 uses the traditional method of affixing the slip ring so that it should be free to rotate and yet not come off the assembly axially.

(iv) Kesselman's 1993 also conversely utilises a flange (72), which is an integral part of the tamper resistant skirt (24), which is not part of the main structural body of the device. Kesselman 1993 also uses the traditional method of affixing the slip ring so that it should be free to rotate and yet not come off the assembly axially.

(v) Thus, the mechanics of securing the tamper-resistant ring are different in Kesselman 1977 and Kesselman 1993 and the plaintiff's UI. In Kesselman 1977 and Kesselman 1993 it is done respectively through the use of a 'slip flange' and "flange" "that is built into the ring, whereas the protrusion in the plaintiff's UI prevents the sleeve from sliding away off the TSTR nut.

(vi) There is no directly corresponding feature on the Kesselman 1977 and the Kesselman 1993 to the circumferential protrusion on the plaintiff's UI, and the plaintiff's UI has a novel way of securing the sleeve (V) using

A the hollow end (IV) through the use of the aforementioned circumferential protrusion (111). In contrast, Kesselman 1997's slip ring embodies its own means to secure itself to the stud engaging portion (24) using a flange that is sized to fit within a special reduced section under the stud engaging portion (24).

B (vii) DE's expert report mislabels the features and mistakenly attributes characteristics to them that they do not possess.

[41] In para. 218, he said as follows in summary of Integer III of the plaintiff's UI and of Kesselman 1977 and Kesselman 1993:

C No comparable item. 197 UI protrusion is an invention that addresses a shortcoming of prior designs, resulting in a new product with superior performance, reliability, and tamper resistance.

Integer "IV" Hollow End

D **[42]** I have reproduced below figure 6 and figure 16 from PE's expert report that he used to highlight the novelty of Integer IV in the plaintiff' UI when compared with Kesselman 1977 and Kesselman 1993.

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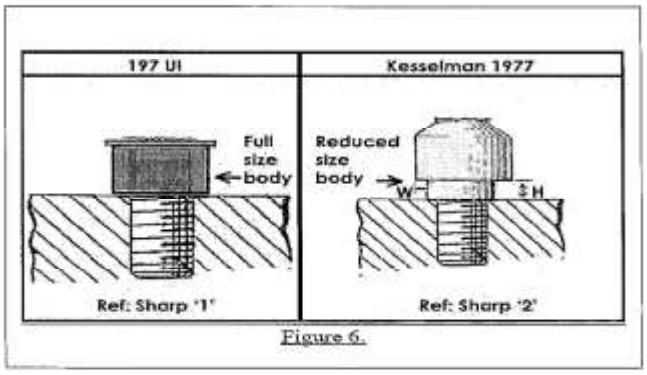
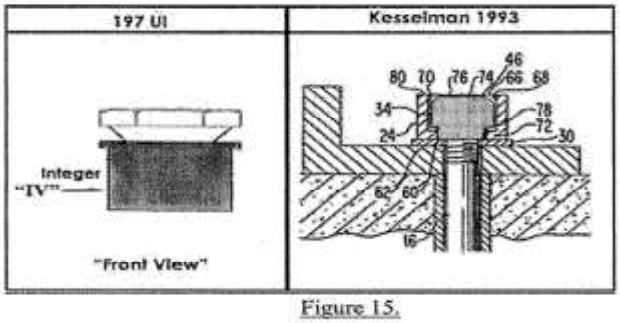


F

Figure 6.

G



H

I

Figure 15.

[43] In paras. 174-186 and 206-209 of his expert report, PE explains at length the novelty of Integer IV of the plaintiff's UI and also responds to DE's opinion that the plaintiff's UI is not novel. Amongst others, he said: A

(i) The primary embodiment of the plaintiff's UI, Kesselman 1977 and Kesselman 1993 is that they each must have a suitable internally threaded portion to engage with the bolt or stud and retain the bolt tension after tightening. Quite simply, each must have a 'nut', however named. B

(ii) However, the 'nut' portion of all three have very different profiles, due to the fact that each embodies, in a different way, features which are needed to accommodate affixing and protecting their 'tamper-resistant' qualities. C

(iii) Even though all three have a uniformly curved outer surface on the main body portions of their 'nut', the main difference between the plaintiff's UI and Kesselman 1977 and Kesselman 1993 is very significant one, is that Kesselman 1977's 'nut' and Kesselman 1993's 'nut' must have a 'reduced section' at the interior portion to accommodate and capture the flange (108) of the slip ring (40) (for Kesselman 1977) and the flange and the 'tamper resistant skirt' (24) (for Kesselman 1993) in order to provide the benefit of tamper-resistance. Conversely, the 'nut' for the plaintiff's UI is full size, (*ie*, has no reduced section) for its full height from its point of contact with the mating surface through to the full height of the nut. D E

(iv) Thus, there is no question that the novel way the plaintiff's UI eliminates the problems associated with the 'reduced section' of Kesselman's design and uses its 'protrusion' (Integer III) are a new improvement and a breakthrough in the realm of mechanical fasteners when compared to Kesselman 1977 and Kesselman 1993. F

(v) As the plaintiff's UI eliminates the reduced section all-together, so the concerns about tolerancing for the complex geometric requirements for a suitable durable tarn per-resistant feature are eliminated. Stated differently, the plaintiff's UI eliminates the need to balance the opposing requirements of a reduced section that, (a) noods to be large enough to accommodate a flange of sufficient strength to retain the slip ring, and (b) small enough to minimise the negative mechanical implications of an under-sized or 'reduced body' nut. G H

(vi) Thus, though Kesselman 1977, Kesselman 1993 and plaintiff's UI have a main nut body, with each intended to have a load carrying capability so as to support the loads associated with tightening of the fastener assembly, that is where the similarities end. Kesselman 1977 and Kesselman 1993 embody dimensional features needed to accommodate I

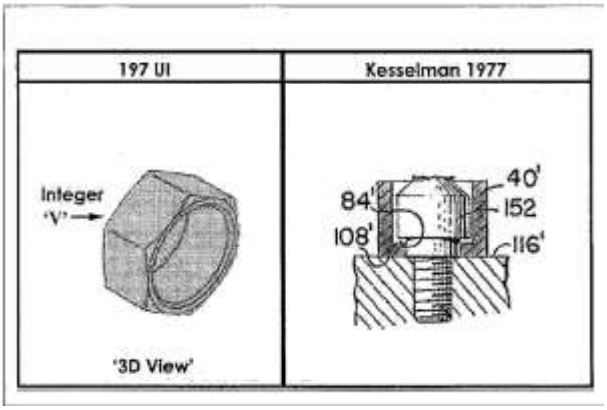
its means for securing the tamper resistant ring. And, as discussed above, the dimensional features of a 'reduced section' introduce a number of potential shortcomings in application. The plaintiff's UI avoids the potential shortcomings because the hollow end incorporates a completely different means to accommodate a secure tamper resistant sleeve.

[44] In para. 218, he said as follows in summary of Integer IV of the plaintiff's UI v the Kesselman patents:

> No comparable item. 197 UI hollow end is an invention that addresses a shortcoming of prior designs, resulting In a new product which overcomes all of the shortcomings associated with nuts that have reduced sections.

Integer V: Sleeve

[45] I have reproduced below figure 7 and figure 16 from PE's expert report that he used to highlight the novelty of Integer V in the plaintiff's UI when compared with Kesselman 1977.



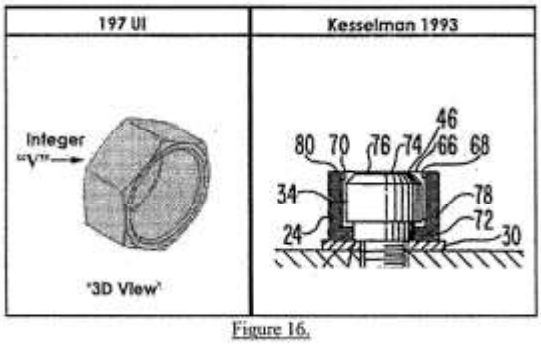


Figure 16.

[46] In paras. 187 to 194 and 210 to 217 of his expert report, PE explains at length the novelty of Integer V of the plaintiff's UI and also responds to DE's opinion that the plaintiff's UI is not novel. Amongst others, he said:

(i) The final integer from the plaintiff's UI which can be compared to Kesselman 1977 and Kesselman 1993 is the function of the 'sleeve' (plaintiff's UI) vs. the 'slip ring' (Kesselman 1977) and the tamper resistant skirt (Kesselman 1993). The respective inventions differ substantially in the manner with which they accommodate the tamper-resistance function and therefore differ in their ability to inhibit unauthorised access.

(ii) The plaintiff's UI and Kesselman 1977 and Kesselman 1993 differ fundamentally in their operation. The design of the Kesselman 1977 device necessitates careful consideration of the slip flange (108), as it captures and locates the slip ring (40) on the inner body (152). The design of the Kesselman 1993 device necessitates careful consideration of the flange (72), as it captures and locates the skirt (24) on the cap (34). Both the slip flange and the flange must be thick enough and wide enough to resist tampering in the form of prying with commonly available tools. At the same time, both must not interfere with either the underside of the nut or the outer wall of the nut in the area of the 'reduced section' discussed earlier above.

(iii) Conversely, the design of the plaintiff's UI device does not embody a complex tamper resistant slip flange. It accommodates a circumferential protrusion that captures and locates the ratebly coupled 'sleeve'. The 'sleeve' of the plaintiff's UI is thereby substantially simplified in that it only needs to provide a receiving surface on which the protrusion is mated during final assembly.

(iv) Further, the design of the plaintiff's UI is superior in that the protrusion is restrained when the assembly is installed. That is, an effort to tamper with the plaintiff's UI device using commonly available tools and prying action would require that the circumferential 'protrusion' be drawn through the entire interior of the 'sleeve' from its outer edge through its entire height ('H') in order to remove the sleeve.

[47] In para. 218, he said as follows in summary of Integer V of the plaintiff's UI v the Kesselman patents:

> No comparable item. 197 UI sleeve is an invention that offers a more secure (restrained) method of being affixed with improved tamper resistance.

[48] In para. 220 and 221 of his expert report, PE concluded:

220. In my opinion, UI MY165197A is unique and represents a breakthrough not contemplated by prior art exhibits or other prior art for similar objects I reference in the body of my expert report.

The UI integrates a decidedly unique means to 'capture' and protect its free-spinning outer sleeve in a manner that is superior to any method previously considered by persons having ordinary skill in the art. UI MY165197A is the first and only significant and novel leap forward since Kesselman in 1977 and 1993. Further, I find the Defendant's expert report does not accurately depict the novelty of the 197 UI with respect to its very clear and obvious differences and superior functional design when considered in an integer by integer comparison. In other words, it seems obvious that the 197 UI is a new improvement in the realm of mechanical fasteners, which is a breakthrough over the limitations of the Kesselman patents or anyone else's designs.

221. In my opinion, invalidation of UI MY165197A would not be in keeping with the requirements for granting a utility innovation. The device most certainly is a new product, and at the very least an improvement on an existing product, that has well-documented and obvious industrial application. Further, the inventiveness embodied in the device surpasses that of items which are granted a patent, let alone a grant of utility innovation.

[49] I accept PE's evidence and make a finding of fact that the plaintiff's UI is novel on all three Integers III, IV and V and was not anticipated by the Kesselman patents. Any one of them will do, if I am wrong on anyone or two of them. Consequently, this ground of invalidation fails.

Industrial Applicability

[50] Section 16 of the Act read with the Second Schedule provides:

A utility innovation shall be considered industrially applicable if it can be made or used in any kind of industry.

[51] In *Tan Yock Kuan & Anor v. Cew Sin Plastics Pipe Sdn Bhd* [2019] 1 LNS 681; [2019] MLJU 1379 (HC), Wong Kian Kheong J said:

Parliament has given a wide meaning to the term "industrially applicable" in s. 16 PA (any kind of industry).

[52] Two years earlier in *Merck Sharp & Dohme Corp & Anor v. Hovid Bhd* [2017] 1 LNS 53, he said:

It is clear that 194 Patent is "industrially applicable" under s. 16 PA because the alendronate dosing regimen in 194 Patent can be made or used in the healthcare industry. In the English High Court case of *Eli Lilly & Co v. Human Genome Sciences Inc* [2008] RPC 29, at paragraph 226, Kitchin J (as he then was) held as follows:

> The notion of industry must be construed broadly. It includes all manufacturing, extracting and processing activities of enterprises that are carried out continuously, independently and for commercial gain (BDPI Phosphatase/Max-Plank) (decision of EPO's BOA). However, it need not necessarily be conducted for profit (Chiron) and a product which is shown to be useful to cure a rare or orphan disease may be considered capable of industrial application even if it is not intended for use in any trade at all (Hematopoietic cytokine receptor/Zymogenetics) (decision of EPO's BOA).

[53] Both PE and DE testified that an anti-theft nut could be applied in several instances and in a host of different industries:

(i) in his expert report, PE said:

> Any mechanical fastening system which could thwart or minimise tampering presents a prospect for a high value added product or service. Similarly, other structures like roadside guardrails, microwave towers and water distribute in systems are obvious candidates for targeting and tampering by unauthorised persons ... For example, owners of cell-phone towers, over-the-air radio stations, electric substations, airport perimeter fences, railway transmission lines and weather stations might all benefit from the Ul. Even operators of manufacturing plants have cause to employ tamper-resistance to mechanically fastened connections of machinery and other assets that employees might otherwise tamper with.

(ii) In para. 19 of his expert report, DE said:

> From my experience and one which the background of the 197 UI vouched for as well, it is not an uncommon occurrence for bolted joints of these structures to be tampered and unfastened by trespassers.
>
> In fact, this long-standing problem faced by the public structures such as high-tension power transmission line structures would have a serious impact on these vandalised structures.
>
> As a result, the said vandalised public structures may be weakened and could eventually collapse under the workload. Insofar as high-tension power transmission line structures are concerned, this could also cause a power failure. To avoid tampering of the nuts at the bolted joints, these structures require constant monitoring. Anti-theft systems or devices have been devised for installation onto the bolted joints of these public structures.

[54] In light of this evidence, I find the defendant's criticism of PE's reference to the plaintiff's sales of the plaintiff's UI to be unfounded. The evidence shows repeated sales transactions, which supports PE's conclusion that the plaintiff's UI is industrially applicable. PE said:

> The industrial applicability of UI MY165197A is further born (*sic*) out by a history of successful manufacturing, marketing, and sales of the TSTR Nut If one reviews invoices, (such as documented in bates-stamped pages 99 thru 138), one has to conclude that the UI is sufficiently compelling to customers that orders for full production quantities are not unheard of.
>
> It is a further testament to this new product that its unit cost is noted as being comparatively high when compared with the fasteners with which it is used and sold, giving rise to the fact that customers clearly value the benefits provided by TSTR Nuts.
>
> In conclusion, the industrial application of the UI is not in question in the least. To the contrary, the facts indicate that the UI is readily manufactured, is target-marketed to prospective users, provides a compelling benefit to would-be purchasers, is worthy of purchase at a cost higher than that of the associated fasteners with which it is used, solves a long-standing issue within the construction industry, is easy to install using existing skills and tools, and provides long-term tamper resistance.

[55] DE's opinion on the industrial inapplicability of the plaintiff's UI is founded on the allegation that, the standard practice in the erection or installation of a transmission line steel lattice tower requires two inspections, the first on the construction of the tower and the second after the stringing of the high voltage cables. The allegation goes that the nut would already have been tightened prior to the first inspection, and the second inspection may require a second tightening with further tightening even after that. The argument is that the plaintiff's UI is inapplicable to the erection or installation of a transmission line steel lattice tower because it does not allow for a second or further tightening by wrench or spanner once the tail end (I) is removed upon the first tightening.

[56] Countering this is the evidence of those sales to SEB. Even more damaging, in my mind, to the defendant's contention is the fact that, though the defendant had initially sub-poenaed one Chen Kai Chin from SEB ("the SEB witness") to testify for it, on its own volition for reasons best known to it, the defendant then opted not to call him. I accept the plaintiff's invocation of the adverse inference of this decision under s. 114(g) of the Evidence Act 1950 (*ie*, the SEB witness' testimony would have been averse to the defendant's case).

[57] For these reasons, I make a finding of fact that the plaintiff's UI is industrially applicable and reject the defendant's objection and ground of invalidation.

Invalidation: Alleged Lack Of Sufficient Disclosure

[58] In para. 20 of its amended defence and counterclaim, the defendant pleaded:

Further and/or in the alternative, the claim stated in the 197 UI is not clear and concise and not fully supported by the description, contrary to Regulations 12 and 13 of the Patents Regulations, 1986 ("the PR") and section 23 of the PA. such, the 197 UI should not be patentable due to lack of sufficient disclosure and it should be invalidated, pursuant to section 56(2)(b) of the PA.

[59] In the particulars that follow, the defendant's principal ground for its contention of insufficient disclosure is:

The claim and/or description of the 197 UI does not specify that it functions both as a structural nut as well as an "add-on-nut" (*ie*, am additional nut fastened onto a nut and bolt assembly).

[60] At this juncture, I would reject the defendant's attempt to bring the alleged "recess" into the frame of play because it was never pleaded.

[61] Section 23 of the Act simply provides that the plaintiff's UI must comply with the Patents Regulations 1983.

[62] Regulations 12(1)(c) and 13(1) of the Patents Regulations 1983 provide:

12. Description

(1) The description shall first state the title of the invention as appearing in the request and shall:

(c) disclose the invention in such terms that it can be understood and in a manner sufficiently dear and complete for the invention to be evaluated and to be carried out by a person having ordinary skill in the art, and state any advantageous effects of the invention with reference to the background art;

13. Claims

(1) The claims shall be clear and concise and fully supported by the description; and the number of the claims shall be reasonable taking into consideration the nature of the invention.

[63] In *Idenix Pharmaceuticals Inc. v. Gilead Sciences Inc & Ors* [2016] EWCA Civ 1089, Lord Justice Kitchin said:

The specification must disclose the invention clearly and completely enough for it to be performed by a person skilled in the art. The key elements of this requirement which bear on the present case are these:

(i) the first step is to identify the invention and that is to be done by reading and construing the claims;

(ii) in the case of a product claim that means making or otherwise obtaining the product;

(iii) in the case of a process claim, it means working the process;

A (iv) sufficiency of the disclosure must be assessed on the basis of the specification as a whole including the description and the claims;

(v) the disclosure is aimed at the skilled person who may use his common general knowledge to supplement the information contained in the specification;

B (vi) the specification must be sufficient to allow the invention to be performed over the whole scope of the claim;

(vii) the specification must be sufficient to allow the invention to be so performed without undue burden.

C **[64]** Thus, the test for sufficiency of disclosure is whether the plaintiff's UI specification as a whole, discloses the plaintiff's innovation in a manner that is sufficiently clear and complete for a POSITA to make the product.

[65] PE was of the view that the plaintiff's UI specification sufficiently disclosed it:

D 142. ... In sum, the drawings which comprise the figures for the device are not only sufficiently clear and revealing, they are sufficiently instructional to teach a person of moderate knowledge in the art of manufacturing fasteners how to interpret and visualise the wording of the mechanical innovation, and how one can go about manufacture of the product.

E 143. ... Further, there is no special additional information one would need to know in order to replicate the device. The device can be replicated from the drawings using established routinely available manufacturing materials, techniques and practices.

F 145. In conclusion, the UI covered under MY165197A is sufficiently clear, is presented in a concise manner to aide understanding and provide necessary detail, and is fully supported by its description. It's title, in English, cannot be improved upon: It captures not only the functionality aspect of its installation, and conveys the result perfectly; it also places the innovation squarely in the technical field G to which it belongs.

159. In conclusion, [the Plaintiff's UI] provides ample disclosure in a clear and complete manner such that a POSITA could understand the invention, and if he or she so desired, design, manufacture, and market the device to a diversity of applications in which 'tamper-resistance' is paramount – whether such benefit is provided by a nut H which may be used as a primary nut or as a secondary nut.

[66] I would reject the defendant's contention that the plaintiff's UI is insufficiently disclosed. The allegation that the plaintiff's UI "does not specify that it functions both as a structural nut as well as an "add-on-nut"" I relates to the function of the plaintiff's UI, which is irrelevant to the issue of whether, from the specification, a POSITA is able to make the product.

[67] As for the structural nut vs add-on nut, I will deal with that later in this judgment.

[68] I would therefore reject this contention and find for a fact that the plaintiff's UI is sufficiently disclosed in the specification.

Infringement

[69] Section 58 of the Act speaks of acts deemed to be infringement, as follows:

> Subject to subsections 37(1), (2) and (3) and section 38, an infringement of a patent shall consist of the performance of any act referred to in subsection 36(3) in Malaysia by a person other than the owner of the patent and without the agreement of the latter in relation to a product or a process falling within the scope of protection of the patent.

[70] Section 36(3)(b) of the Act specifies the acts which only the owner may perform in relation to a patent or utility innovation for a product:

> 36. Rights of owner of patent
>
> (1) Subject and without prejudice to the other provisions of this Part, the owner of a patent shall have the following exclusive rights in relation to the patent:
>
> (a) to exploit the patented invention ...
>
> (3) For the purposes of this Part, "exploitation" of a patented invention means any of the following acts in relation to a patent:
>
> (a) when the patent has been granted in respect of a product:
>
> (i) making, importing, offering for sale, selling or using the product;
>
> (ii) stocking such product for the purpose of offering for sale, selling or using;

[71] In our case, the defendant does not dispute that it supplied the defendant's ATN to SEB for the Simaiajau to Mapau 500kV and the Mapai to Oya 275kV Transmission Line Projects. What must then be determined is whether the defendant's ATN infringes the plaintiff's UI.

[72] In *Fukuyama Automation Sdn Bhd v. Xin Xin Engineering Sdn Bhd & Anor* [2014] 1 LNS 1210; [2015] 9 MLJ 823 (HC), Yaacob Md Sam J (as he then was) said:

> It is settled law that the question whether there has been infringement must be considered by comparing the alleged infringing article with the claim said to be infringed.

[73] In *Ranbaxy (Malaysia) Sdn Bhd v. E I Du Pont De Nemours & Co* [2011] 1 LNS 16; [2011] MLJU 1135 (HC), Azahar Mohamed J (now CJ ((M)) said:

In *Catnic Components & Anor v. Hill & Smith Ltd* [1982] RPC 183, it was stated at para. 20 of p. 225 as follows:

> To determine whether a claim of a patent has been infringed, he must first discover what is claimed. The claim must be construed and analysed to ascertain what are the features – sometimes called the Integers – of the subject matter for which a monopoly is claimed. The claim must be construed in the context of the specification as a whole and in the light of any admissible evidence. It must be read and interpreted as it would be read and interpreted by the notional addressee of the specification, that is to say, a man skilled in the relevant art who has at his disposal the common knowledge in that art at the date of the publication of the specification. When so construed the claim must be analysed to discover what are the several features of the thing for which a monopoly is claimed. One must next consider the alleged infringement to determine whether it infringes the claim. If the alleged infringement of the claim has all the features of the claim it must infringe the claim, even if it also incorporates other features.

[74] In *Tan Yock Kuan, supra*, Wong Kien Kheong J applied the Essential Integers Test as the test for infringement of utility innovations:

> I am not able to find any Malaysian case which has laid down a test to ascertain UI Infringement. As PA applies to UI's with certain modifications (please see s. 17A(1), (2) PA and 2nd Schedule), I adopt one of the tests to decide patent infringement, namely the "Essential Integers Test". The Essential Integers Test has been explained by Lord Upjohn in the 3-2 majority judgment in the House of Lords' case of *Rodi & Wienenberger AG v. Henry Showell Ltd* [1969] RPC 367, at 391 (*Rodi*'s case), as follows:
>
> > To constitute infringement, the article must take each and every one of the essential integers of the claim. Non-essential integers may be omitted or replaced by mechanical equivalents.
>
> *Rodi*'s Case has been followed by Vernon Ong JCA in the Court of Appeal in *Yeohata Machineries Sdn Bhd & Anor v. Coil Master Sdn Bhd & Ors* [2015] 6 MLJ 810, at [15].

[75] Thus, ascertaining whether there was an infringement of the plaintiff's UI, the defendant's ATN is to be compared with the plaintiff's UI claim. If the ATN contains all of the five essential integers of the plaintiff's UI claim, then the defendant's ATN infringes the plaintiff's UI.

[76] In PE's opinion, all five of the essential integers are present in the defendant's ATN. He said in his expert report:

49. Visual examination of physical samples of the infringing product reveals that the infringing product embodies the same five essential integers as pertain to MY165197A. Examination of illustrations and photographs of the infringing product in defendant's 'ATN Users Manual' provide confirming evidence that the infringing product is mechanically synonymous that of both CN204458755U and utility innovation MY165197A.

50. Based upon the comparison between the infringing product and that covered by (the Plaintiff's UI), a reasonable person, suitably informed, would have to conclude that there is not a significant difference between the two. The only differences of any kind which were found were for convenience of manufacturing, slight reduction in material consumption, or appearance. The functional characteristics which derive from the interplay of the essential integers are exactly the same. This applies whether one compares (the Plaintiff's UI) to the infringing product or to that described in CN204458755U. The essential integers of the infringing product, (and CN204458755U) are expressions of the very same integers in the (Plaintiff's UI), only the terminology is different. Nothing novel or of import is to be found in the integers of the infringing product that is not captured and expressed in the integers of Lin's utility innovation.

51. The integers for the infringing product are merely a rearrangement or rephrasing of the integers of Lin's UI. That is, in terms of functionality they are, in my opinion, mechanically indistinguishable ...

[77] In DE's opinion, the defendant's ATN did not infringe the plaintiff's UI, for two reasons. Firstly, the defendant's ATN did not contain all the five essential integers, because the function of the defendant's ATN requires additional integers. Secondly, the defendant's ATN was a variant of the plaintiff's UI.

[78] In respect of DE's first contention that the defendant's ATN did not contain all the five essential integers because the function of the defendant's ATN requires additional integers, I would just repeat part of the passage in *Catnic Components & Anor v. Hill & Smith Ltd* [1982] RPC 183 that Azahar Mohamed J (now CJ (M)) referred to in *Ranbaxy (Malaysia)*, *supra*:

> If the alleged infringement of the claim has all the features of the claim it must infringe the claim, even if it also incorporates other features.

[79] I would therefore find that, simply because the defendant's ATN requires additional integers does not mean that it does not infringe the plaintiff's UI. That the defendant's ATN contains all the five essential integers of the plaintiff's UI is what matters.

[80] In respect of the DE's second contention that the defendant's ATN was a variant of the plaintiff's UI, from his evidence it was clear that he said so because of the use to which the defendant's ATN was put. In his view, they were different because the plaintiff's UI could be used as a 'structural nut' whereas the defendant's ATN could only be used as an "add on".

[81] I would reject these views for several reasons. Firstly, the alleged difference in the usage of the plaintiff's UI and the defendant's ATN is irrelevant for determining infringement. As I said earlier, what matters is that the defendant's ATN contains ail the five essential integers of the plaintiff's UI.

[82] Secondly, as DE admitted in cross-examination, the usage of a nut for a particular project is decided by the project engineer. If the project engineer decided to use the defendant's ATN as a 'structural nut' or an 'add-on nut', that would be up to him.

[83] Thirdly, I would also accept PE's evidence on an alleged 'add-on nut' that:

> There is no such mechanical fastening device. Further, there is no national or international standards covering 'add-on' nuts. Nor are there any consensus standards covering 'add-on' nuts. Defendants are free to use this non-standard terms, as is anyone else, but the term carries no weight in the mechanical fastener designs, engineering and manufacturing sectors.

And just a few paragraphs later in his expert report:

> It is therefore of no surprise that Kesselman, Mainier and Lin do not discuss the notion that their tamper-resistant nuts could be used either as a 'primary nut' or, if the customer prefers, as a 'secondary lock nut' or 'add-on nut'. If one's tamper-resistant nut is suitable for use as a primary nut, it follows that it would automatically be suitable as a secondary 'lock-nut', 'add-on nut' or 'cap nut'. The inverse is not true.

[84] I would therefore find for a fact that the defendant's ATN infringes the plaintiff's UI.

Conclusion

[85] I find that the defendant has not made out any case for invalidating the plaintiff's UI as a utility innovation and that the ATN infringes the plaintiff's UI.

[86] I accordingly allowed the plaintiff's claim and dismissed the defendant's counterclaim, with costs of RM120,000 subject to allocator.

[87] Before I conclude, I wish to acknowledge with appreciation the fine efforts of learned counsels for both the plaintiff and the defendant, for well-conducted cases, and for concluding the hearing phase of the trial within

three of the allotted five days. Though they took pains to make up for that by providing me with lengthy written submissions, for their attention to detail and comprehensive coverage of the issues, I am most gratified.

[88] I also acknowledge with appreciation the POSITA roles played by the two experts, Mr. David Sharp and En. Salimi bin Md. Saleh, who aptly provided (excuse the pun), the nuts and bolts of the case. This court has great admiration for those dedicated to Science and technology. The extensive information in their expert reports could only have been borne out of years and years of dedication and industry and was extremely helpful to this court in arriving at its decision. The irony is that their massive contribution to this trial had ultimately to be deciphered and put into terms that we in the legal fraternity, 'strangers' to their callings, could understand. I hope this judgment has not done their reports a 'disservice' and wish them well.